AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method of securely accelerating customer premises equipment based virtual private network transmissions over a carrier network comprising the steps of:

establishing an encrypted acceleration tunnel between a VPN acceleration client and a VPN acceleration server in response to a VPN acceleration client request for information;

transmitting said VPN acceleration client's VPN address and required data information to said VPN acceleration server over said encrypted acceleration tunnel;

establishing an encrypted VPN tunnel between said VPN acceleration server and an appropriate VPN switch thus providing access to the appropriate enterprise content servers, said appropriate enterprise ~~Enterprise~~ content servers corresponding with said required data information transmitted; wherein said encrypted acceleration tunnel and said VPN acceleration server utilized same network layer in a standard OSI model.

encrypting and transmitting required data corresponding to said required data information from said VPN switch to said VPN acceleration server over said VPN tunnel, said required data is communicated from said appropriate enterprise ~~Enterprise~~ content server to said VPN switch prior to encryption and transmission;

decrypting said required data at said VPN acceleration server; and

accelerating and encrypting by said VPN acceleration server and transmitting said required data to said VPN acceleration client; and decrypting said required data in response to said VPN acceleration client receiving said required data.

2. (original) A method as claimed in claim 1 wherein the step of establishing an encrypted acceleration tunnel uses public key infrastructure (PKI) encryption.

3. (original) A method as claimed in claim 1 wherein the required data information includes at least one of a VPN switch address, user name, and password.

4. (original) A method as claimed in claim 1 wherein the encrypted VPN tunnel is an IPSec tunnel.

5. (original) A method as claimed in claim 1 wherein the encrypted VPN tunnel is an MPLS tunnel.

6. (original) A method as claimed in claim 1 wherein the encrypted VPN tunnel is a L2TP tunnel.

7. (currently amended) A server for providing secure virtual private network service for wireless clients comprising:

a first module for terminating a virtual private network tunnel to a private network switch;

a second module for accelerating data for transmission over a wireless network; and

a third module for terminating an encrypted acceleration tunnel to a wireless client whereby a secure virtual network service is provided between the private network ~~service is provided between the private network~~ and the wireless client, for which acceleration of data on the wireless network is provided, wherein said encrypted acceleration tunnel and said virtual private network tunnel utilized same network layer in a standard OSI model.

8. (original) A server as claimed in claim 7 wherein the virtual private network tunnel is IPSec.

9. (original) A server as claimed in claim 7 wherein the virtual private network tunnel is MPLS.

10. (original) A server as claimed in claim 7 wherein the virtual private network tunnel is L2TP.

11. (original) A server as claimed in claim 7 wherein the encrypted tunnel is public key infrastructure encrypted.